ABSTRACT

A prism sheet having a concave pentagonal structure is disclosed. The prism sheet comprises a base layer, and a prism array disposed on and supported by the base layer. The prism array is composed of a plurality of prisms aligned in parallel and one beside the other. The transversal cross-section of each prism has a shape of concave pentagon, which is symmetrical about a vertical line passing the apex. The interior angle α of the apex is $30° \leq \alpha \leq 120°$, the exterior angle β formed by the upper slant side and the lower slant side is $\beta < 180°$, the interior angle γ of the lower vertex formed by the lower slant side and the base is $5° \leq \gamma \leq 85°$ and the length w of the base is $30\mu m \leq w \leq 100\mu m$. Preferably, the interior angle α of the apex may be $40° \leq \alpha \leq 100°$, the exterior angle β formed by the upper slant side and the lower slant side may be $160° \leq \beta \leq 179°$, and the interior angle γ of the lower vertex formed by the lower slant side and the base may be $30° \leq \gamma \leq 60°$. Preferably, the length w of the base may be $40\mu m \leq w \leq 60\mu m$.